

**REMARKS**

Please reconsider the application in view of the following remarks.

**Status of Claims**

Claims 1 – 21 are pending in the present application.

**Claim Rejections - 35 U.S.C. §103(a)**

Claims 1, 8, and 15 were rejected under 35 U.S.C. 103(a) as being unpatentable over **Tonegawa** (US 7,136,184) in view of **Tanimoto** (JP 2002-281230) further in view of **Hochmuth** (US 7,064,765).

Claims 2, 9, and 16 were rejected under 35 U.S.C. 103(a) as being unpatentable over **Tonegawa** (US 7,136,184) in view of **Tanimoto** (JP 2002-281 230) further in view of **Hochmuth** (US 7,064,765) and further in view of **Kisono** (US 6,906,829)

Claims 3, 10, and 17 were rejected under 35 U.S.C. 103(a) as being unpatentable over **Tonegawa** (US 7,136,184) in view of **Tanimoto** (JP 2002-281 230) further in view of **Hochmuth** (US 7,064,765) and further in view of **Murata** (US 7,139,088).

Claims 4, 11, 18 were rejected under 35 U.S.C. 103(a) as being unpatentable over

**Tonegawa** (US 7,136,184) in view of **Tanimoto** (JP 2002-281230) further in view of **Hochmuth** (US 7,064,765) and further in view of **Wu** (US 6,519,051).

Claims 5, 12, and 19 were rejected under 35 U.S.C. 103(a) as being unpatentable over **Tonegawa** (US 7,136,184) in view of **Tanimoto** (JP 2002-281230) further in view of **Hochmuth** (US 7,064,765) and further in view of **Reifman** (US 5,438,433).

Claims 6, 7, 13, 14, 20 and 21 were rejected under 35 U.S.C. 103(a) as being unpatentable over **Tonegawa** (US 7,136,184) in view of **Tanimoto** (JP 2002-281 230) further in view of **Hochmuth** (US 7,064,765) and further in view of **Reifman** (US 5,438,433) and further in view of **Murata** (US 200410012806).

Each of the above rejection is respectfully traversed.

**Independent claims 1, 8 and 15**

Claim 1, as previously presented, calls for ... *means for serially converting the image data of a page of said original document for the facsimile communication into plurality of packets as electronic mail data, said converting into the plurality of packets occurring in parallel with the scanning of said page of the original document; and ....*

Claim 8, as previously presented, calls for ... *a data conversion unit which serially converts the image data of a page of said original document for the facsimile communication into plurality of packets as electronic mail data in parallel with the scanning of said page of the original document; and ....*

Claim 15, as previously presented, calls for ... *converting the image data of a page of said original document for the facsimile communication serially into plurality of packets as electronic mail data in parallel with the scanning of said page of the original document; and ....*

For example, Fig. 3 (d) illustrates the electronic mail data generation state for converting the image data that is formed for the three pages of original documents into electronic mail data (electronic mail data generation process): **D1 through D3 show packets of electronic mail data that were converted from the image data P1D (generation state); D4 through D6 show packets of electronic mail data that were converted from the image data P2D (generation state); D7 through D9 show packets of electronic mail data that were converted from the image data P3D (generation state).** That is, in this example, the image data are respectively divided into three packets, and electronic mail data are formed. The data conversion unit 24 operates as the electronic mail data generating function (data converting function) that executes the electronic mail data generation process with the control unit 10. *see paragraph [0038] of the present specification.*

For example, Fig. 3 (e) illustrates the electronic mail transmission state via the LANIF 16 (electronic mail transmission process), and shows that a part of the electronic mail is transmitted serially each time **the electronic mail data (D1 through D9) are formed**. Reference numeral MH shows an electronic mail transmission header, and MD1 through MD9 show electronic mail transmission data. The electronic mail header MH corresponds to the electronic mail header H, and **the electronic mail data MD1 through MD9 correspond to the electronic mail data D1 through D9.... see paragraph [0040] of the present specification.**

In other words, when the generation of the electronic mail header H is completed, the electronic mail transmission header MH is transmitted, and **when the generation of the electronic mail data D1 is completed, the electronic mail transmission data MD1 is transmitted so on and so forth until the electronic mail transmission data MD9 corresponding to the electronic mail data D9 of the third and final page 3 (P3), is finally transmitted.** The electronic mail transmission data is transmitted serially according to the generation of the corresponding electronic mail data. *see paragraph [0042] of the present specification.*

**On page 3 of the Office Action,** the Examiner contends that, in column 2, line 65 to column 3, line 13, Tonegawa teaches means for serially converting the image data of a page of said original document for the facsimile communication into plurality of packets as electronic

mail data. The Examiner argues that since the network is packet based, the image is sent via packets. Applicants respectfully submit that this is an incorrect interpretation.

In column 2, line 65 to column 3, line 13, Tonegawa discloses the following:

“[...] A communication apparatus for providing a facsimile communication **via a packet communication network**, comprises image data acquisition means for acquiring image data having a **predetermined resolution**, conversion means for converting the image data into image data having a **predetermined number of pixels**, sending information acquisition means for acquiring sending information of the image data, generation means for generating sending information image data using the sending information, and sending means for generating **an e-mail message** on the basis of the sending information, generating composite image data by combining the converted image data and the sending information image data, and **sending the e-mail message attached with the composite image data.**” (emphasis added)

As noted in the blocked paragraph above, Tonegawa discloses image data acquisition means for acquiring image data having a predetermined resolution (quality). This predetermined resolution limits the number of pixels the image can have. **In other words**, if the image is of higher resolution (better quality), it has higher number of pixels. If the image is of lower resolution (lower quality), it has lower number of pixels. Also, Tonegawa is concerned with routing image data (faxes) to a plurality of destinations whose header information naturally will be different (some larger than the other) because header information contains data such as a date, time, source information, destination information etc. *See column 2, lines 41-52.*

In the conventional facsimile communication apparatuses, previous to Tonegawa, the problem was that when image data having one of **various resolutions** and **an indefinite number of pixels** was sent while giving sending information such as a date, time, source telephone number, destination name, and the like, the character size became unnaturally too large or too small, or characters fell outside a paper sheet. *See column 2, lines 17-38.*

By having predetermined resolution that limits the image to a predetermined number of pixels, Tonegawa solved this problem. However, Applicants respectfully point out to the Examiner that Tonegawa, based on predetermined resolution, converts the image data into image data having a predetermined number of pixels (quality) and then combines the converted image data with sending information data (Header data) to generated an e-mail data and sends composite image data as the e-mail data that is generated by combining the converted image data and the sending information image.

**In contrast**, as noted in the example above, the claimed invention serially **converts the image data of a page**, for example **(P1D)**, of the original document for the facsimile communication **into plurality of packets** as electronic mail data, for example, **D1, D2 and D3**. see at least Figs. 3(c) and 3(d).

The claimed invention is **completely different** from Tonegawa because Tonegawa converts the entire image data into an image of predetermined quality and it then combines this

converted image data with the header data which is then sent to a destination via an electronic mail. **In other words**, whereas the claimed invention serially converts the image data of a page into plurality of packets as electronic mail, Tonegawa, on the other hand, combines the image data with header data prior to transmitting it via an E-mail.

Furthermore, on pages 3-4 of the Office Action, the Examiner acknowledges that “Tonegawa in view of Tanimoto does not teach data into parts occurring in parallel with the scanning of the whole data.” That is, Tonegawa does not disclose *said converting into the plurality of packets occurring in parallel with the scanning of said page of the original document*. Nonetheless, the Examiner contends that Hochmuth teaches “a converting data into parts occurring in parallel with the scanning of the whole data (Column 5, lines 54-61, wherein since the display is split up into multiple sections, the buffer contains two parts that render each part of the display. The data is processed for one part of the display, while the data of the other part of the display is rendered onto the display. This shows a parallel process of converting and scanning).” Therefore, the Examiner argues that “Tonegawa in view of Tanimoto and Hochmuth are combinable because they all deal with processing data for output. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Tonegawa in view of Tanimoto with the teachings of Hochmuth for the purpose of improving the quality and speed of the output (Hochmuth: Column 5, line 62- Column 6, line 4).” Applicants submit that this is an incorrect interpretation.

Applicants respectfully submit to the Examiner that the rejection based on the frame grabber apparatus of Hochmuth which uses a double-buffering technique is improper for at least the following reasons:

First, the Examiner's contention -- "[ ] since the display is split up into multiple sections, the buffer contains two parts that render each part of the display. The data is processed for one part of the display, while the data of the other part of the display is rendered onto the display. This shows a parallel process of converting and scanning" -- does not appear to be supported by Hochmuth.

Second, for argument sake even if Hochmuth did support what the Examiner stated above, which it does not, Applicants respectfully point out to the Examiner that double-buffering, in Hochmuth, supports two separate buffers in parallel, so that while Buffer 1 is read Buffer 2 can be written, and while Buffer 2 is read Buffer 1 can be written.

However, as explicitly disclosed in column 5, lines 54 to 65 as cited by the Examiner, Hochmuth, with regards to double-buffering, discloses the following:

"Upon the occurrence of the next buffer swap, the rendering logic 155 begins to render graphical data to **the frame buffer 152**, which is again considered to be the "**back buffer**," and the video output interface 158 begins to read graphical data from **the frame buffer 153**, which is again considered to be the "**front buffer**." Such **double-buffering techniques** are generally well-known in the art and are employed in many high-performance graphics adapters.

Note that double-buffering generally allows **an image to be completely rendered to a frame buffer before it is displayed.** Without utilizing double-buffering or other similar type of buffering (e.g., triple-buffering), a frame buffer is normally read by a display device and associated logic while a graphics adapter is rendering to the frame buffer. In such a situation, the animation quality of the displayed images can be significantly degraded depending on the rendering speed of the graphics adapter and the refresh rate of the display device.” (emphasis added)

**In other words**, unlike the claimed invention, for example, where the image data are converted into the electronic mail data (D1, D2, D3 ... D9) in parallel with the original document scanning process, Hochmuth discloses complete storing of an image into one frame buffer of the two frame buffers (double buffer) provided before the image is displayed on a display device. In fact, as noted in column 3, lines 38-45, in Hochmuth, “ the frame-grabbing system, while grabbing an image frame from a frame buffer, **prevents updates to the frame buffer**, thereby ensuring the integrity of the grabbed data. In particular, **the frame-grabbing system, by preventing updates to the frame buffer during a frame grab, ensures that all of the grabbed image frame corresponds to the same image.** “

Therefore, in other words, Hochmuth discloses storing an image completely before displaying it. This is completely different from *said converting into the plurality of packets occurring in parallel with the scanning of said page of the original document* as recited in claims 1, 8 and 15.

Application No.: 10/684,370  
Art Unit: 2625

Response under 37 CFR §1.111  
Attorney Docket No.: 031182

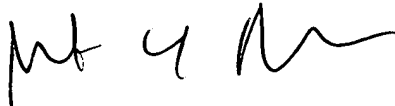
Because the proposed combination of the above cited references does not teach or suggest all of the claimed elements and limitations in claims 1, 8 and 15, Applicants submit that claims 1-21 would not have been obvious over these references. Accordingly, Applicants request that the rejection under 35 U.S.C. 103 be withdrawn.

The Claims have been shown to be allowable over the prior art. Applicants believe that this paper is responsive to each and every ground of rejection cited in the Office Action dated October 3, 2008, and respectfully request favorable action in this application. The Examiner is invited to telephone the undersigned, applicants' attorney of record, to facilitate advancement of the present application.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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